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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,804	10/19/2004	Leonie Maria Geerdinck	NL 020303	4276

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
WON, BUMSUK	
ART UNIT	PAPER NUMBER
2879	

MAIL DATE	DELIVERY MODE
08/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/511,804	GEERDINCK ET AL.	
	Examiner	Art Unit	
	Bumsuk Won	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-9 and 11-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-9 and 11-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendment filed on 6/11/2007 has been entered.

Response to Arguments

Applicant's arguments with respect to the independent claims 1, 11, 14 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-8, 14 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hampden (US 2003/0168635) in view of DC (US 5,980,980).

Regarding claim 1, Hampden discloses a luminescent screen (throughout the specification, specifically figures 35A-F and 40, 1208) comprising particles of luminescent material embedded in an inorganic material (paragraph 213) comprising aluminum phosphate and silicon oxide (paragraph 213), and the inorganic material fills pores between the particles of luminescent material (figures 35C and 35F).

Hampden does not discloses the aluminum phosphate being monoaluminum phosphate being used as an inorganic material..

DC discloses a porous ceramic body (figures 1 and 2, 20) in an analogous art having a monoaluminum phosphate (column 3, lines 52-67) used as an inorganic material, for the purpose of protecting the layer from being damaged.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a monoaluminum phosphate used as an inorganic material as disclosed by DC in the screen disclosed by Hampden, for the purpose of protecting the layer from being damaged.

Regarding claim 4, Hampden discloses a discharge lamp (figure 40) equipped with the screen claimed in claim 1.

Regarding claim 5, Hampden discloses a vessel (1202) that is transparent for visible light (paragraph 237) and the screen is deposited on part of an inner wall (figures 40 and 41).

Regarding claims 6 and 7, Hampden discloses phosphor having yttrium oxide being doped (paragraph 171).

Regarding claim 8, Hampden discloses the lamp is fluorescent lamp (paragraph 237).

Regarding claim 14, Hampden discloses a discharge lamp (figure 40) comprising: a discharge vessel (1202); and a luminescent screen (throughout the specification, specifically figures 35A-F and 40, 1208) formed on a wall of the vessel (figures 40 and 41), the screen comprising a first layer having a luminescent material having luminescent particle (1208, paragraphs 211-213, "phosphor particles") formed on the wall of the vessel (figures 40 and 41); and a second layer comprising an inorganic material having inorganic particles, and the second layer directly covering the first layer (paragraphs 211-213, "the phosphor particles are coated, figures 35A-F), and the inorganic material fills pores between the particles of luminescent material (figures 35C and 35F).

Hampden does not discloses the aluminum phosphate being monoaluminum phosphate being used as an inorganic material..

DC discloses a porous ceramic body (figures 1 and 2, 20) in an analogous art having a monoaluminum phosphate (column 3, lines 52-67) used as an inorganic material, for the purpose of protecting the layer from being damaged.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a monoaluminum phosphate used as an inorganic material as disclosed by DC in the screen disclosed by Hampden, for the purpose of protecting the layer from being damaged.

Regarding claim 16, Hampden discloses the inorganic material includes silicon oxide (paragraph 213).

Regarding claims 17 and 18, Hampden discloses phosphor having yttrium oxide being doped (paragraph 171).

Regarding claim 19, Hampden discloses a method of forming a luminescent screen on a lamp wall (figures 35A-F, 40 and 41) comprising the acts of: mixing luminescent particles with aluminum phosphate and silicon oxide particles to a slurry (paragraphs 211-213); applying the slurry to the lamp wall (figure 41); and drying the lamp wall (paragraph 240).

Hampden does not discloses the aluminum phosphate being monoaluminum phosphate being used as an inorganic material..

DC discloses a method of forming a porous ceramic body (figures 1 and 2, 20) in an analogous art having a monoaluminum phosphate (column 3, lines 52-67) used as an inorganic material, for the purpose of protecting the layer from being damaged.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a monoaluminum phosphate used as an inorganic material as disclosed by DC in the method disclosed by Hampden, for the purpose of protecting the layer from being damaged.

Claims 9-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hampden in view of DC, in further view of Hiroyuki (JP 01178584) which is cited prior art in the IDS.

Regarding claim 9, Hampden discloses all the claim limitation except for diameter of particles of the luminescent material being greater than diameter of the inorganic particles of the aluminum phosphate by at least an order of magnitude of ten times.

Hiroyuki discloses the luminescent material having luminescent particles greater than aluminum phosphate by at least 50 times (abstract, constitution), for the purpose of having effective light emitting performance.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have luminescent particles greater than aluminum phosphate by at least 50 times disclosed by Hiroyuki in the luminescent screen disclosed by Hampden, for the purpose of having effective light emitting performance.

Regarding claim 10, Hiroyuki discloses aluminum phosphate is added to adhere to the phosphor particles (abstract, constitution, the phosphate is added for the adhering purpose, thus the phosphate is mixed between the phosphor particles). The reason for combining is same as claim 9.

Regarding claim 11, Hampden discloses a luminescent screen (throughout the specification, specifically figures 35A-F and 40, 1208) comprising a first layer having a luminescent material having luminescent particle (1208, paragraphs 211-213, "phosphor particles"); and a second layer comprising an inorganic material having inorganic particles including aluminum phosphate (paragraph 213), and the second layer directly covering the first layer (paragraphs 211-213, "the phosphor particles are coated, figures 35A-F).

Hampden does not disclose the inorganic particles are smaller than the luminescent particles so that the inorganic particles fill pores between the luminescent particles, and the aluminum phosphate being monoaluminum phosphate.

Hiroyuki discloses in an analogous art the inorganic particles are smaller than the luminescent particles (abstract, constitution, the phosphate is added for the adhering purpose, thus the phosphate is mixed between the phosphor particles), for the purpose of achieving excellent dispersibility (abstract, purpose).

DC discloses a porous ceramic body (figures 1 and 2, 20) in an analogous art having a monoaluminum phosphate (column 3, lines 52-67) used as an inorganic material, for the purpose of protecting the layer from being damaged.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have phosphor particles and aluminum phosphate wherein the size of the aluminum phosphate is much smaller than the phosphor particles disclosed by Hiroyuki and the aluminum phosphate being monoaluminum phosphate disclosed by DC in the luminescent screen disclosed by Hampden, for the purpose of achieving excellent dispersibility.

Regarding claim 12, Hiroyuki discloses the luminescent particles are greater than aluminum phosphate by at least 50 times (abstract, constitution). The reason for combining is same as claim 11.

Regarding claim 13, Hiroyuki discloses the inorganic material includes aluminum oxide and silicon oxide (abstract, constitution). The reason for combining is same as claim 11.

Regarding claim 15, Hampden discloses all the claim limitation except for diameter of particles of the luminescent material being greater than diameter of the inorganic particles of the aluminum phosphate by at least an order of magnitude of ten times.

Hiroyuki discloses the luminescent material having luminescent particles greater than aluminum phosphate by at least 50 times (abstract, constitution), for the purpose of having effective light emitting performance.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have luminescent particles greater than aluminum phosphate by at least 50 times disclosed by Hiroyuki in the luminescent screen disclosed by Hampden, for the purpose of having effective light emitting performance.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bumsuk Won whose telephone number is 571-272-2713. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bumsuk Won/

Patent Examiner, Art Unit 2879

JOSEPH WILLIAMS
PRIMARY EXAMINER